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Harold:

Attached ~~is~~ are specific ballistic data on the ~~xx2~~ .243 Win. and the 30/ 06. Both cartridges can accomplish about the same thing, but they do it in a somewhat diffetent way from one another.

What is important is the weight of the bullets that they fire, and the velocity at which they fire them. Understand that many variables come into play in determining the effect that each type and weight of bullet will have, but ~~in general~~ in general the heavier bullets of the 30/06 (soft-nose loads) tend to expand (into mushroom shape) more gradually than the ~~243xxxlighter~~ lighter bullets of the 243 (assuming that both the heavy and light bullets are moving at about the same rate of speed when they strike their target.

Perhaps it would be best to illustrate. There is a goat a hundred yards away. I have rifles in 30/06 and .243 Win, and ~~various~~ cartridges of various bullet weights for each.

~~If~~ I shoot the goat with my 30/06, using fairly heavy bullets of, say, 150 grains, The bullets that do not strike bone are likely to pass right through before they have completed the mushrooming expansion. On a bigger and tougher animal (a black bear, say) my bullet probably would have expanded fully, perhaps coming to rest in the bear's body just inside the hide on the other side of the entrance wound. Skin is elastic and very tough, and bullets that do not pass through often end up there.

Now, if my 150 gr. 30 cal. bullet struck a bone in the goat, depending on how hard was the bone and how the bullet struck it, I would expact that if the bullet fragmented, it broke only into three or four ~~px~~ fairly large pieces, with perhaps a few tiny fragments. That I mean is that the fragmentation is not explosive.

Now I shoot a goat with a light 30 cal bullet-- say 110 grains. This bullet moves very fast, and is bad, bad medicine for small animals like goats, for the expansion of this bullet is much more violent, and the shock wave inside the body is devastating. This bullet will expand very fast inside the goat, and (I hope)will come to rest on the inside of his hide opposite the entarance.

If that light 30 cal strikes bone, it will butrst into more pieces than the heavy bullet.

The heavy loading (100 grains) of my ~~243~~ 243 is likely to have the same effect as the light loading of my 30/06. Actnally, the 30 cal. and 243 cal. bullets are about the same weight, but the bullets are "light" or"heavy" with respect to the other loadings in the respective calibers. * — this, I believe, is about 80 grains (I have not yet checked ballistic tables.

The light bullet* fired in the 243 is going to mash up that goat pretty badly; this small bullet is moving at tremendous speed; ~~and is design~~ that combination--light weight, and high speed-- does something quite different from the previous bullets mentioned. This type of combination is the favorite of varmint hunters who like to shoot woodchucks, foxes, crows, prairie dogs, and the like--little animals. You don't want the bullet to mushroom when it strikes~~the~~ these little creatures, for mushrooming takes too long--the mushrooming would just be getting started when the bullet is passing out~~s~~ the other side; it's no better than shooting the little thing with a non-expanding bullet. What you want for varmint shooting is a bullet that explodes on impact, a bullet that does most of its damage on the surface of what it strikes. The high-speed .22 cal center-fire cartridges are best for this business,